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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,947	04/08/2004	Eric D. Brill	MS307421.1/MSFTP594US	9717

27195 7590 03/15/2007		EXAMINER	
AMIN. TUROCY & CALVIN, LLP		KIM, PAUL	
24TH FLOOR, NATIONAL CITY CENTER			
1900 EAST NINTH STREET		ART UNIT	PAPER NUMBER
CLEVELAND, OH 44114		2161	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/820,947	BRILL ET AL.
	Examiner	Art Unit	
	Paul Kim	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

     1.☐ Certified copies of the priority documents have been received.

     2.☐ Certified copies of the priority documents have been received in Application No. _____.

     3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date *7/7/2004*.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Office action is responsive to the following communication: Amendment filed on 15 January

2007.

2.   Claims 1-16 are pending and present for examination. Claim 1 is independent.

Election/Restrictions

3.   Applicant's election of claims 1-16 in the reply filed on 15 January 2007 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction

requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Information Disclosure Statement

4.   The information disclosure statement (IDS) submitted on 07 July 2004 is in compliance with the

provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the

examiner.

Claim Objections

5.   Claim 13 is objected to because of the following informalities: the claim recites "a features." It is

assumed that Applicant intended the claim to recite "a feature" and for the purposes of this examination,

the present claim will treated as such. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis

for the rejections under this section made in this Office action:

        A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use
or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.   **Claims 1-7, 10-11, and 13-16** are rejected under 35 U.S.C. 102(b) as being anticipated by

Vanderveldt et al (U.S. Patent No. 6,266,668, hereinafter referred to as Vanderveldt), filed on 4 August

1999, and issued on 24 July 2001.

8.   **As per independent claim 1,** Vanderveldt teaches:

A system that ranks search results, comprising:

> a first component that determines a relevance of respective search results via one or
>   more feature-based relevance functions {See Vanderveldt, C10:L37-46, wherein this reads
>   over "[t]he dynamic search would then proceed to 'spider' to each of the links contained in each
>   page, according to a function of the relevance"}; and

> a second component that orders the search results based on the respective
>   relevances {See Vanderveldt, C11:L4-5, wherein this reads over "[r]elevant information is filtered
>   and presented to the user making the inquiry"}.

9.   **As per dependent claim 2,** Vanderveldt teaches:

The system of claim 1, the one or more feature-based relevance functions utilize features
    that include at least one of:

> one or more text-based relevance scores {See Vanderveldt, C10:L43-46, wherein this reads over
>   "the relevance function would consist of simple text matching and counting of keyword
>   occurrences"};

> a comparison between text-based relevance scores with different scopings;

> an occurrence of a word in a thread position relative to a posting;

> an occurrence of a word-class in a thread position relative to a posting;

> an occurrence of a phrase in a thread position relative to a posting;

> an inferred label on an edge between a posting and the posting's parent;

> an inferred label on an edge between a posting and the posting's child;

> a number of messages in a thread;

> a thread depth;

> a thread maximal branching factor;

> a thread linguistic property;

> a posting depth;

a number of descendents of a posting;

a number of children in a posting;

a number of postings per time duration;

a number of newsgroups posted;

a number of postings that have no responses;

a probability that a posting is relevant given the posting is from a particular newsgroup; and

a probability a posting from a particular newsgroup is relevant given a query.

Additionally, it is noted that because the remainder of features listed in the present claim are optionally recited within the claim, they will not be given further consideration nor will prior art be applied for the purposes of this examination.

10.   **As per dependent claim 3,** Vanderveldt teaches:

The system of claim 1, the relevance functions are generated based on one or more of scoped lexical information {See Vanderveldt, C10:L43-46, wherein this reads over "the relevance function would consist of simple text matching and counting of keyword occurrences"}, a digital artifact attribute, and a source repository attribute.

Additionally, it is noted that because the remainder of features (i.e. "digital artifact attribute" and "source repository attribute"} listed in the present claim are optionally recited within the claim, they will not be given further consideration nor will prior art be applied for the purposes of this examination.

11.   **As per dependent claim 4,** Vanderveldt teaches:

The system of claim 1, the search results are associated with searches over one or more collections of digital artifacts {See Vanderveldt, C9:L35-40, wherein this reads over "Web servers, Highspeed Internet Connections, Web pages, Health-related Databases"}.

12.   **As per dependent claim 5,** Vanderveldt teaches:

The system of claim 4, the collections of digital artifacts comprise data associated with one or more of a Usenet, a mailing list, a discussion thread, a wiky, a blog, an archived community discussion, a chat room, a web page, a database, and a list {See Vanderveldt, C9:L35-40, wherein this reads over "Web servers, Highspeed Internet Connections, Web pages, Health-related Databases"}.

Additionally, it is noted that because the remainder of features (i.e. "a Usenet, a mailing list, a

discussion thread, a wiky, a blog, an archived community discussion, a chat room"} listed in the present

claim are optionally recited within the claim, they will not be given further consideration nor will prior art

be applied for the purposes of this examination.

13.   **As per dependent claim 6,** Vanderveldt teaches:

> The system of claim 1, further comprising a function generator that creates the relevance
> functions based on at least one of a training set, a feature set, a probability, an
> inference, a classifier, a heuristic, and user specified criteria {See Vanderveldt, C10:L37-39,
> wherein this reads over "[b]ased upon the top N (adjustable by the user) results returned by the static
> search, the dynamic search would assign a relevance to each page"}.

Additionally, it is noted that because the remainder of features (i.e. "a training set, a feature set,

a probability, an inference, a classifier, a heuristic"} listed in the present claim are optionally recited

within the claim, they will not be given further consideration nor will prior art be applied for the purposes

of this examination.

14.   **As per dependent claim 7,** Vanderveldt teaches:

> The system of claim 1, the relevance functions are refined based on a user's response to
> the ranked search results {See Vanderveldt, C10:L37-39, wherein this reads over "[b]ased upon the
> top N (adjustable by the user) results returned by the static search, the dynamic search would assign a
> relevance to each page"}.

15.   **As per dependent claim 10,** Vanderveldt teaches:

> The system of claim 1, the relevance functions associate relevance weights with
> respective search results and the ranking of the search results is based on the
> relevance weight {See Vanderveldt, C4:L43-46, wherein this reads over "allowing reduced weight for
> synonym and possible misspelling matches"}.

16.   **As per dependent claim 11,** Vanderveldt teaches:

> The system of claim 1, the relevance functions are generated via machine learning {See
> Vanderveldt, C4:L60-65, wherein this reads over "generated by a neural network trained upon the user
> profile and previous searches and relevance results"}.

17.   **As per dependent claim 13,** Vanderveldt teaches:

> The system of claim 1, the one or more feature-based relevance functions utilize a
> features that are obtained by extracting information from digital artifacts {See
> Vanderveldt, C4:L39-42, wherein this reads over "extract/provide useful information from publicly and
> freely available databases"}.

18.   **As per dependent claim 14,** Vanderveldt teaches:

The system of claim 1, further comprising a thresholding component that defines one or
    more acceptable relevance levels in order to mitigate providing non-relevant search
    results to a user {See Vanderveldt, C4:L54-65, wherein this reads over "[a]fter a maximum number of
    links have been followed, or the total relevance of pages indexed exceeds a threshold, the search stops
    and results 0 are returned to the user"}.

19.   **As per dependent claim 15,** Vanderveldt teaches:

The system of claim 14, the acceptable relevance levels are configured for at least one of
    an application and the user {See Vanderveldt, C9:L1-5, wherein this reads over "[d]epending on
    the profile, the presentation will rate, weigh and organize each search to present the most relevant and
    related topics of interest"}.

20.   **As per dependent claim 16,** Vanderveldt teaches:

The system of claim 14, the acceptable relevance levels dynamically adjust based on the
    user's response to search results {See Vanderveldt, C9:L18-21, wherein this reads over "[o]ver
    time, the profile information database will continue to grow and become more intelligent. Therefore, each
    subsequent search will become more intelligent and relevant to the previous user"}.

Claim Rejections - 35 USC § 103

21.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
    section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
    are such that the subject matter as a whole would have been obvious at the time the invention was made to a
    person having ordinary skill in the art to which said subject matter pertains.   Patentability shall not be
    negatived by the manner in which the invention was made.

22.   **Claim 8-9 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderveldt,

in view of Official Notice.

23.   **As per dependent claim 8,** the Examiner takes Official Notice that it would have been obvious

to one of ordinary skill in the art that "the relevance functions are probabilities that respective digital

artifacts are relevant to a search." That is, one of ordinary skill in the art would readily acknowledge that

relevance functions are simply a measure of how closely related the user's query is related to the data

source.

24.   **As per dependent claim 9,** the Examiner takes Official Notice that it would have been obvious

to one of ordinary skill in the art that the "relevance function is defined as Relevance (V(posting, query)),

which is a relevance weight of a posting given a query, wherein function (V(posting, query) returns a set

of features and feature values for a particular posting and query." That is, since relevance functions are

simply a measure of how closely related the user's query is related to the data source, the relevant

function would necessarily contain and operate upon the variables of the "posting" and the "query."

25.   **As per dependent claim 12,** the Examiner takes Official Notice that it would have been

obvious to one of ordinary skill in the art that the machine learning includes "a linear regression." That

is, one of ordinary skill in the art would readily acknowledge that a linear regression is a commonly used

regression method in statistics wherein it provides for a relation of the response to the explanatory

variables which is a linear function of some parameters.

Additionally, it is noted that because the remainder of features (i.e. "a non-linear regression, and

a support vector machine"} listed in the present claim are optionally recited within the claim, they will not

be given further consideration nor will prior art be applied for the purposes of this examination.

Conclusion

26.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Paul Kim whose telephone number is (571) 272-2737. The examiner can normally be

reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu

Mofiz can be reached on (571) 272-4080. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at

866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or

access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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